

DRAFT

SOIL BODING LOG

Page 1	of 4	SOI	L BORING LOG				
WELL NO.	0232	LATITUDE Not Measured	LONGITUDE Not Measured				
CFMW-023a Not Measured PROJECT NO./NAME		NOL MEASURED	LOCATION				
	/ CFAC RI/FS		2000 Aluminum Drive				
APPROVED BY L. Jensen	,	LOGGED BY A. Hoffmann	Columbia Falls, Montana				
	ITRACTOR/DRILL		GEOGRAPHIC AREA				
	rilling / Carlos		South Leachate Pond				
DRILL BIT DIAN 6-in. / Sonic		BORËHOLE DIAMETER 6-inches	DRILLING EQUIPMENT/METHOD Truck Mounted / Rotosonic	SAMPLING I		START-FINISH DATE 6/17/16-6/20/16	
LAND SURFAC		DEPTH TO WATER	BACKFILL			0/11/10-0/20/10	
Not Measur	ed	Not Measured	20% Bentonite Grout				
Depth, feet	Graphic Log	Visua	al Description	Blow Counts per 6"	PID Values (ppm)	REMARKS	
	000000000000000000000000000000000000000	□ Dark brown, fine to coarse SA	ND, little Gravel, trace silt; moist	pero	(ppm) 0.0	6 ft recovery	
• • • •		Light brown, fine to coarse SA	ND, some fine to medium Gravel, little Silt;		0.0	Sample CFMW-023-SO-0-0	0.5
		moist				and CFMW-023a-SO-0-0.5-Pb	
					0.3	11 4 1	5-2
5	000000000000000000000000000000000000000				0.5	Sample CFMW-023-SO-0.5 collected	
	******	Brown, fine to medium GRAVI	EL, some fine to caorse Sand, trace boulder;			10 ft recovery	
		moist	Into the sacree saira, trace bounder,			TO IL IGOOVERY	•••
• • • • •					1.4		
10					1.7		10
				_			
		Brown, fine SAND, some Silt,	little Cobble; moist				
					0.6	Sample CFMW-023-SO-10-12	
 15						collected	15
15	0000	Boulder/Cobble; dry			0.0		
		Brown, fine to coarse SAND a	nd fine to medium GRAVEL, trace silt; moist	-	0.0	5 ft recovery	
					1.0		
	300000000000000000000000000000000000000			_	0.0		
20	0000	Boulder/Cobble; dry	nd fine to medium GRAVEL; trace silt; moist	_			20
		Drown, file to coarse GAND a	nd line to mediam Grovell, trace siit, most				
							•••
					0.8		
25		Ý					25
		<u></u>		_			
	0,000	Brown, fine to coarse SAND a silt; moist	nd fine to medium GRAVEL; trace cobble and			6 ft recovery	
					0.0		•••
 30		Brown, fine to coarse SAND a	nd fine to medium GRAVEL, trace cobble;	-			30
	8.010,000	moist					
					0.1		
		Rrown fine to cocres SAND -	nd fine to medium GRAVEL; trace cobble and				
35	0,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	silt; moist	na nne to medium GRAVEL, trace cobble and		0.1		35
		Brown, fine to coarse SAND.	some broken Boulder/Cobble and angular			2 ft recovery	•••
		Gravel, trace silt; dry	J		0.2	,	
	0 0 0 0 0 0 0 0		some Boulder/Cobble, little angular Gravel,	_		7 ft recovery	
40	0,	trace silt; dry				38 through 107 ft PID not	40
	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0					recorded (sample core too hot)	
							•••
 45	0,000,000,000	1					45
			some Boulder/Cobble (at 46/49 ft bls) and fine	-		6 ft recovery	
	0,0,0,0,0	to coarse Gravel, trace silt; mo	pist				
50	0,0,0,0,0						
	0 0 0 0 0 0 0						
50		4					50



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WELL NO. CFMW-023a		Not Measured	LONGITUDE Not Measured			
PROJECT NO.			LOCATION			
APPROVED BY	/ CI AC NI/I 3	LOGGED BY	2000 Aluminum Drive			
L. Jensen		A. Hoffmann	Columbia Falls, Montana			
Depth, feet	Graphic Log	Vis	ual Description (continued)	Blow Counts per 6"	PID Values REMARKS (ppm)	
		Brown, fine to coarse SANI Gravel; dry	D, some Boulder (54 ft bls) and fine to coarse		3 ft recovery	
		Oravoi, dry				
 55		Brown, fine to coarse SAND and medium GRAVEL, some Cobble and			6 ft recovery	
		broken Boulder (at 57 ft bls	s); moist			
		Brown fine to coarse SANI	D, some fine to medium Gravel, trace cobble; dry	.,—		
 60		brown, fine to coarse ozivi	b, some line to medium Graver, trace cobble, dry	'		
			D and medium GRAVEL, trace broken boulder;		2 ft recovery	
		dry — — — — — — — — — —				
		Brown, fine to coarse SANI coarse angular Gravel; dry	D, some broke Boulder/Cobble, little fine to		7 ft recovery	
 85						
65						
	· · · · · · · · · · · · · · · · · · ·		D, some fine to coarse Gravel, trace cobble;			
		moist				
<u>70 </u>		Brown, fine to coarse SANI	D and fine to coarse GRAVEL, some broken		8 ft recovery	
		Boulder/Cobble; dry	,		,	
75						
30		Brown fine to cooree SANI	D and fine to medium GRAVEL, some Cobble,		9 ft receiven:	
	0.0000000000000000000000000000000000000	little broke Boulder and coa			8 ft recovery	
35						
	3					
	********		D, some broken Boulder/Cobble, some fine to		11 ft recovery	
90	0,000,000	coarse Gravel; dry				
	000000000000000000000000000000000000000					
95	[*************************************					
		Proving operate CAND Int	fing to modium Cond. trace grouph de-			
		DIOWII, CORISE SAIND, IITIE	fine to medium Sand, trace gravel; dry			
00			D, some broken Cobble and fine to coarse		8 ft recovery	
		Gravel, trace silt; dry				
	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,					
	000000000000000000000000000000000000000					
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WELL NO. CFMW-023a		Not Measured	LONGITUDE Not Measured				
PROJECT NO./I 2476.0001Y	NAME / CFAC RI/FS	Phase 1	LOCATION				_
APPROVED BY		LOGGED BY	2000 Aluminum Drive				
L. Jensen		A. Hoffmann	Columbia Falls, Montana				
Depth, Graphic feet Log		Visual Description (continued)		Blow Counts per 6"	PID Values (ppm)	REMARKS	
			O, some broken Boulder and fine to coarse			12 ft recovery	
		Gravel; dry (continued)			0.0		
110							1
		Brown, fine to coarse SAND, little fine to medium Gravel, trace silt; moist					
 115	000000000000000000000000000000000000000						
	0000000	Brown, fine to coarse SAND	D, little fine to medium Gravel, trace silt; wet		0.0		
		Brown fine to coarse SAND	D, little fine to medium Gravel and Silt; wet		0.0		
120			., Janes to Mediani. Gravor and Gray, Wol		0.0		
		Tan/brown, fine SAND, little	fine Gravel, trace silt; wet			10 ft recovery	
					0.0		
125							
		Grey/brown, fine to coarse moist, medium dense/stiff	SAND, some Silt, little fine to coarse Gravel;				
		molot, modalii donoo/otiii			0.0		
			D, some Silt and broken Boulder, little fine to			Sample	
130	• • • • • • •	coarse Gravel; dry			0.0	CFMW-023a-SO-123-128 collected	
		Tan/brown and purple, fine dense/stiff	SAND, little Silt and broken Boulder; moist,		0.0	Comociou	
			D, some Sitt, little fine to coarse Gravel; dry,		3.3		
		dense/stiff			0.0		
135		Brown/grey, fine to coarse trace silt; wet, loose	SAND, little Cobble and fine to coarse Grave	el,		12 ft recovery	
		trado dik, trot, idado					
	*******				0.0		
140	********	Brown/grey medium GRAV	/EL, little fine to coarse Sand and Silt; wet, lo				
		browningrey, medium or or v	EL, intio file to coarse dand and dir, wer, ic	,030	0.0		
		Brown, fine to coarse SAND	D, some fine to coarse Gravel; wet, loose				
	000000000000000000000000000000000000000	- Drawn fine to access CANE	Nikila fina ta assess Consul and City majet		0.0		
145_	0,000,000	loose	O, little fine to coarse Gravel and Silt; moist,		0.0		
			r, some fine to medium Gravel, trace clay; d	ry,		2 ft recovery	
		very stiff			0.0	1.5	
					0.0	4 ft recovery	
150		Pulverized rock					
					0.0		
		Purnle/grey nulverized PO	CK, some cobble, pulverized to a silty clay			2 ft recovery	
155		powder; dry	on, como cobbio, pulvenzed to a sitty day		0.0	2 it lecovery	
					0.0		
		Purple/grey, pulverized ROG powder; moist from drilling v	CK, some Cobble, pulverized to a silty clay water		0.0	4 ft recovery	
	K-X		CK, trace cobble, pulverized to a silty clay		0.0		
 160		powder; dry	,		0.0		
			CK, some fine to medium Gravel, pulverized	to a		4 ft recovery	
	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	sitty clay powder; moist and	compact due to drilling water				
					0.0		
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SOIL BORING LOG Page of WELL NO. LATITUDE LONGITUDE CFMW-023a Not Measured Not Measured PROJECT NO./NAME LOCATION 2476.0001Y / CFAC RI/FS Phase 1 2000 Aluminum Drive LOGGED BY APPROVED BY Columbia Falls, Montana L. Jensen A. Hoffmann Blow PID Depth, Graphic Visual Description Counts per 6" Values REMARKS feet Log (ppm) (continued) 165 165 Purple/grey, pulverized ROCK, some fine to coarse Gravel, pulverized to a 2 ft recovery silty clay powder; wet due to drilling water 0.0 2 ft recovery 0.0 170 170 175 175 0.0 Purple, BEDROCK, rock cores of purple fissile rock, broken along fractures 9 ft recovery 180 180 Purple, BEDROCK, rock cores of purple fissile rock, broken along fractures 4 ft recovery 185 185 0.0 190 190 195 195 End of boring at 196 ft bls. Borehole grouted to surface. BORING/FEET CFAC BORING LOGS.GPJ ROUX.GDT 7/21/16